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(Kathryn L. Nash)

Docket No.: 64098-0775
AP9464
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:
Oliver Hecker, et al.

Application No.: 09/530,156

Confirmation No.: 3844

Filed: August 25, 1999

Art Unit: 3683

For: Method of Operating Braking Assisted Systems

Examiner: M. Burch

REPLY BRIEF

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BOARD OF PATENT APPEALS
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Dear Sir:

This is a Reply Brief submitted pursuant to 37 C.F.R. § 1.193 in response to the Examiner's Answer mailed March 5, 2004 ("Examiner's Answer").

Claims 1, 10, and 17-19 are pending in the application and are involved in this Appeal. Claim 1 is an independent claim and Claims 10 and 17-19 ultimately depend from Claim 1. The present application was filed on April 25, 2000 with a Preliminary Amendment that cancelled originally-filed claims 2 through 9. In response to a first Office Action dated June 11, 2001 (Paper No. 6), Claim 1 was amended and Claims 10-19 were added. In response to a final Office Action dated October 16, 2001 (Paper No. 9), and an Advisory Action dated February 15, 2002 (Paper No. 12), Applicants filed a Request for Continued Examination and an Amendment Under 37 CFR 1.111 amending Claims 1, 10-11 and 13-19 and canceling Claim 12. In response to a first Office Action of the RCE dated April 18, 2002 (Paper No. 15), Applicants amended Claims 1, 13, 15 and 16 and cancelled claim 14. In response to a final Office Action of the RCE dated October 21, 2002 (Paper No. 17), Applicants amended Claims 1, 13, and 20 and cancelled claims 15 and 21. In response to the Office Action dated January 21, 2003 (Paper No. 19),

Applicants amended claims 1 and 17-19, and cancelled claims 11, 13, 15, 16, 20 and 21. In response to the final Office Action dated June 16, 2003 (Paper No. 21), Applicants amended Claim 1. In response to the Advisory Action dated August 27, 2003 (Paper No. 23), Applicants filed the Notice of Appeal. No claims have been allowed.

Claims 1, 10 and 17-19 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,027,182 to Nakanishi et al. (hereinafter "Nakanishi"). Appellants timely filed a Notice to Appeal the Examiner's Final Rejection of all claims on September 15, 2003, and thereafter, on November 12, 2003, timely filed a Brief on Appeal ("Appeal Brief").

Among other arguments in the Examiner's Answer, the Examiner contends that:

(1) Nakanishi discloses determining a momentary value of the wheel brake pressure by multiplying a momentary value of a time-dependent excess elevation function with a momentary value of the master cylinder pressure; and

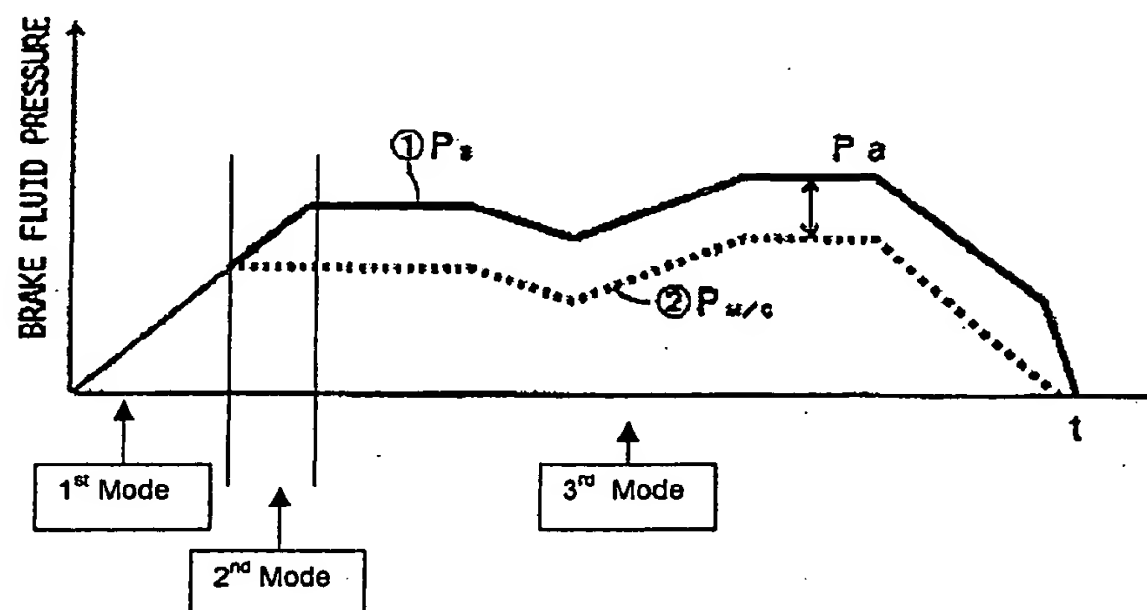
(2) Nakanishi discloses controlling the excess elevation by functionally correlating the wheel brake pressure with the monitored master cylinder pressure throughout the duration of the third mode of operation.

ARGUMENT

A. Nakanishi fails to disclose "determining a momentary value of the wheel brake pressure by multiplying a momentary value of a time-dependent excess elevation function with a momentary value of the master cylinder pressure"

Contrary to the Examiner's contention, Nakanishi does not disclose determining a momentary value of the wheel brake pressure by multiplying a momentary value of a time-dependent excess elevation function ($K(t)$) with a momentary value of the master cylinder pressure, as claimed by the Appellants. Instead, during the Examiner-labeled "3rd mode" of Figure 3 shown below, the assist pressure in Nakanishi (P_a) is set to a value by which the assist deceleration (G_a) is a constant 0.3 G. In other words, the wheel brake pressure in Nakanishi is determined by multiplying the master cylinder pressure with a "constant", rather than a time-dependent excess elevation function as claimed by the Appellants. While the Examiner is

correct in his observation that the claimed time-dependent excess elevation function may be constant, the claimed time-dependent excess elevation function is not a “constant” like the assist acceleration disclosed in Nakanishi.



However, even if Nakanishi disclosed an excess elevation function, which it does not, Nakanishi still does not disclose an excess elevation function that is *time-dependent*. In fact, the supposed Nakanishi excess elevation constant is not dependent on anything, let alone time. Rather, it is a “constant.”

- B. Nakanishi fails to disclose controlling the amount of excess elevation by “functionally correlating the wheel brake pressure with the monitored master cylinder pressure throughout the duration of the third mode of operation”**

The Examiner contends that in the last part of the so-called 3rd mode of the operation in the Nakanishi reference, the so-called Nakanishi excess elevation function is decreasing with time. However, Nakanishi does not even teach “controlling” the amount of excess elevation throughout the last part of the Examiner-defined 3rd mode of operation, let alone utilize an excess elevation function during the Examiner-defined 3rd mode of operation of Nakanishi. Rather, Nakanishi explicitly describes the last part of the Examiner-defined 3rd mode of operation as follows:

“In the present routine, if it is determined, in step 90, that the BA end condition is established, the process of step 92 is performed next.

In step 92, the master cut valve 28 is opened (off state), the inlet valve 78 is closed (off state) and the pump 76 is turned off. After the process of step 92 is performed, the brake force control apparatus returns to the normal state as shown in FIG. 1, that is, a state in which a function of a normal brake is achieved. After the process of step 92 is completed, the routine is ended." (See Col. 13, line 65 through Col. 14, line 7).

As the highlighted sections above emphasize, Nakanishi teaches that the assist pressure (Pa) is terminated by opening the master cut valve 28, closing the inlet valve 78 and turning off the pump 76. In other words, the assist pressure (Pa) in Nakanishi is abruptly terminated without any control, rather than by functionally correlating the wheel brake pressure with the monitored master cylinder pressure as claimed by the Appellants. This uncontrolled condition is exactly what the Appellant's were trying to overcome with the claimed invention.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. *See MPEP §2131*. Contrary to the Examiner's contention that all of the limitations of Claim 1 are disclosed in Nakanishi, at least the steps of functionally correlating the wheel brake pressure with the monitored master cylinder pressure throughout the duration of a third mode of operation and determining a momentary value of the wheel brake pressure by multiplying a momentary value of a time-dependent excess elevation function with a momentary value of the master cylinder pressure throughout the duration of the third mode of operation, are not disclosed, taught or suggested in Nakanishi. Accordingly, the §102 rejection is unsupported by the art and should be withdrawn. Claims 10 and 17-19, which depend from Claim 1, are likewise allowable over the applied art.

CONCLUSION

Appellants respectfully submit that all of the appealed claims in this application are patentable for at least the reasons stated above and request that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

This brief is submitted in triplicate. It is believed that no fees are due with respect to this paper. However, if any fees are found to be required in connection with the filing of this paper, permission is given to charge account number 18-0013 in the name of Rader, Fishman and Grauer PLLC.

Dated: May 11, 2004

Respectfully submitted,

By 
Bradley J. Diedrich

Registration No.: 47,526

Joseph V. Coppola, Sr.

Registration No.: 33,373

RADER, FISHMAN & GRAUER PLLC

39533 Woodward Avenue, Suite 140

Bloomfield Hills, Michigan 48304

(248) 594-0651

Attorneys for Applicant

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Serial No. 09/530,156 Filed: 8-25-1999 Attorney: Bqd/Ker
Applicant: Hecsen, et al. Docket No.: 64098-0775 Date Mailed: 5/11/04
Title: Method of Operating Braking Assisted ☐ Courier ☒ First Class Mail ☐ Express Mail No.

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